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The Maryland Fruit Grower

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Vol. 15 **JANUARY-FEBRUARY-MARCH** **No. 1**

THE FORTY-SEVENTH ANNUAL MEETING

Convened at Hagerstown on January 3 and 4, the Annual Meeting followed a newer type of program. Certain growers were requested to take part in the proceedings, with assigned topics. They responded nobly. There were however, some technical men as key speakers, followed by growers' talks with discussion periods. Another feature was a question box in which growers' inquiries were answered either by technical men or other growers.

A colored sound movie "For Years to Come" opened the meeting. The movie "War-Time Care of Your Tractor" arrived too late for use.

Dr. R. H. Daines, Assistant Pathologist, New Jersey Experiment Station, stated that sulfur seemed to be the best all-round fungicide for fruits. In scab control, lime-sulfur gave best results in his tests, and the finer sulfurs next best. A half-pound of Fermate plus one-half the recommended amount of sulfur in 100 gallons of water also gave even better control of scab than the finer sulfurs in 1943 and 1944. Pink, petal-fall, and 7-day sprays were applied. After being of wet period, wettable sulfur sprays gave good scab control if applied within 12 hours (1943). Wet period lasted 15 hours at 61-66° temperature. Lime-sulfur (1-50) applied within 50 to 52 hours after beginning of wet period (1939) gave 91% scab control. The result was probably due to the burning-out effect of the lime-sulfur. In sprays containing 2 pounds arsenate of lead per 100 gallons, the use of 2 pounds of *fresh* lime gave 39% less defoliation and 51% less leaf injury than where *old* lime was used, on Grimes (1944). Where ½-4-100 Bordo replaced the lime, the injury was even less, and where 2 pounds of lead and 1 pound of Fermate were used, the results were as good as the lead and fresh lime. Spraying the ground with Elgetol, as a scab control was of doubtful value, excepting low, wet spots, and even when done, the full number of regular foliage sprays must be used, also. Dr. Daines described some newer materials but stated that there were some limitations that may affect their use, but further work was being done with them. He recommended night or early morning applications where sulfur dusts were applied to peaches.

Question Box replies—(1) Control apple *scab* by keeping foliage covered at critical time. Don't let it get ahead of you. (2) Apple *bitter-rot* can be controlled by use of copper sprays if timely, applied thoroughly, and of proper strength. Follow spray calendar, and if control is too costly for the variety, remove the trees. (3) Apple *black-rot* is controlled by use of the various sulfur sprays; removal of mummied fruit; removal of cankered and dead limbs, branches or twigs, if cut below the cankered area. (4) *Bacterial peach spot* is increasing in some orchards. Occurs in certain varieties, and on lighter sandy land. Zinc sulfate sprays 8 to 10 pounds per 100 gallons added to all lead sprays and one spray following, has given good control.

De-blossoming sprays of Elgetol to remove part of the bloom and reduce fruit-set, were discussed by several growers. Elberta peaches sprayed at 30-40% full bloom (1 pint per 100 gallons) were not thinned as well as those having the same spray repeated at full bloom, and the double-sprayed trees had larger fruits. Another grower sprayed Transparent and York applies with 1½ pints per 100 gallons in full bloom using guns with No. 7 disks at 600-700 pounds pressure. Later found brooms with less pressure and smaller disks better in reducing foliage-burn. Usually removed about half the blossoms and found crop reduced only about 10%, and more large fruits. Another grower used 4/5 quart per 100 in a Speed sprayer and badly russetted Golden Delicious. Was afraid to spray Stayman, Delicious or Jonathan, but had good results on Transparent. Another grower used 3/5 quart per 100 on Stayman spraying very heavily in an attempt to remove all bloom, due to light bud set, but did not succeed. Also used 4/5 quart per 100 on Wealthy with excellent results, using a broom with fine nozzles. The wire brush treatment on peaches was not so good, also it must be used before the frost hazard has passed, thus is risky.

Question Box replies—(1) Apple *fire-blight* was controlled by one grower using Bordo 4-4-100 at wide-open full-bloom. Increase lime to 8 pounds if weather is very warm. Spray was used on York and Jonathan but not on Grimes or similar russeting varieties. (2) *Summer oils may affect leaf functions* somewhat, but this depends upon tree vigor, weather, etc. Oils may affect other insecticides used. Possibly 3 gallon total oil per tree per season is safe, or 3 quarts in 4 or 5 sprays. Eight oil sprays per year gave some injury. (3) Practical *leaf-hopper control* is doubtful as there are 3 species, each with 4 broods, active from petal-fall. Nicotine in first cover spray, repeated about August, is of help. Must get the young insects before they can fly. Plots sprayed with DDT showed some leaf-hopper decrease. (4) *Machines for drying peaches* picked when wet, were found to be good, but costly and had short seasons of use. One grower picked dew-wet peaches and allowed them to set in orchard for a few hours until dry, before being hauled to packing house.

President Dwight Walker stated that we cannot expect normal results in these abnormal times. Each grower has his plans for the future but individual plans have little effect upon the entire industry. Growers must think of fruit-growing on a State and national scale. His plans must include stronger local and national organizations and he should join and support these organizations for future benefits in his business.

Dr. B. A. Porter, Senior Entomologist, U. S. Department of Agriculture, observed that in spite of better materials and more sprays, the codling moth had increased. Hot, dry weather made things worse, and there will be more moth next year if hot, dry weather prevails. The worms are becoming tougher and something better than lead arsenate is needed, with less residue problems. Thousands of materials have been tested, but with little success. Calcium arsenate is not strong enough and causes injury. Cryolite is good in the West, but fails under our Eastern conditions. Nicotine is 10 to 15 times as poisonous as lead arsenate, but volatilizes, and also washes off. The fixed nicotines and bentonite have great promise, but are scarce at present. Phenothiazine is fairly good, and is improved if used with lead arsenate. DDT has shown promise under limited trials. Its effect upon human beings is not fully known. It has not affected trees, but has killed off many bene-

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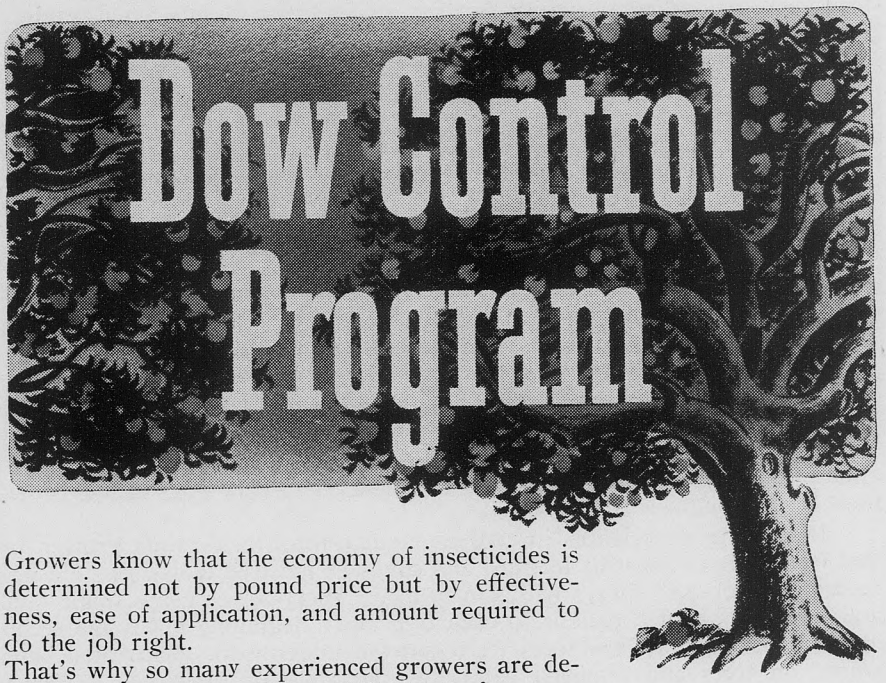

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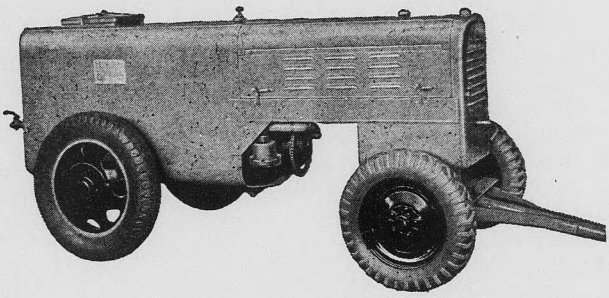
ficial insects, and will not control red mite. It likely cannot be obtained commercially as it contains critical war materials. At cooler temperatures, the worms are easier to poison, but the apples grow rapidly after petal-fall, and coverage is difficult to maintain. Apples increasing from ½ inch to 1 inch have 300% increased surface area; sizing from 1 inch to 1½ inches, 125% increased surface area; and sizing from 1½ inches to 2 inches, 78% increased surface area. Citing a packing house where 10,000 picking crates were found to have an average of 10 spun-up worms per crate, Dr. Porter recommended moth-tight storage for crates; packing house sanitation; scraping and banding of trees in badly-infested blocks, and a complete, thorough spray program.

Dr. C. Graham, Extension Entomologist, University of Maryland, reported a field experiment with lead arsenate and combination lead and DDT sprays (1 to 1½ pounds per 100 gallons), where every apple was counted. He concluded that DDT sprays alone or in combinations with other sprays gave as good if not better control than the regular spray program now being used. He felt that 2 additional DDT sprays applied about Auust 10 and 25, would have shown 90% clean fruit, and that the DDT sprays give about the same control regardless of the size of tree crop. Number of spray applications cannot be reduced even where DDT is used. Spray coverage must be thorough.

Discussing experiences in codling moth control, a Virginia grower felt that lead arsenate must be fortified and coverage must be thorough. He used occasional "top-off" sprays with 2 men in the spray tower using single guns, and applying about 6 gallons to each tree top. Beginning about the second or third cover spray, the trees were sprayed underneath. Untreated bands placed on trees and removed before winter, were of great help. Certain spray crews were assigned to certain blocks, and each crew tried for best control, the idea being that sprays are meant to kill, not to irritate the worms.

A Pennsylvania grower stated that during depression, the light spray programs caused moth increase. Use of 4 pounds of lead per 100 gallons gave variable results in various years. In 1942 he used nicotine, soybean oil and bentonite in first cover; nicotine and oil in second cover; and lead with Orthex deposit builder in third cover, with good results. The 2 following years, the results were not as good. In 1944 the trees were scraped, but scrapings not collected. Also, 6,000 moths were trapped in 10 bait pails, and 6 pounds of lead were used in first cover; 5 in second cover; 4½ pounds in third and fourth covers; and 5 pounds in fifth and sixth covers, along with the usual fungicides, resulting in less stings and worms than in the lead, oil and nicotine sprayed blocks. Weather seemed to affect the results considerably. Next year, this grower will use flotation sulfur and 3 pounds lead in first cover; phenothiazine (2 pounds) and lead (3 pounds) in second and third covers; with Bordeaux and lead in the later sprays.

Grower opinions regarding methods of getting thorough spray coverage brought out the following points: Sufficient equipment is necessary to cover the orchard in 4 or 5 days, and this equipment should work efficiently. Prune trees so spray can reach all parts of the trees, and also spray inside the trees. Use enough material to really do the job. Use towers if necessary to reach the tree tops, and spray with the wind when possible. Don't hurry the job. A few thorough sprays are better than several poor ones. Have all materials and tools handy to save time. If labor is sufficient, the use of



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tank-trucks or "soup wagons" to haul mixed spray to the sprayer in the field will save a lot of time, almost doubling the spray output.

Question Box replies—(1) *Speed sprayers* have given good results where a good operator who understands the machine, goes into the orchard with the machine and nozzles properly adjusted and does not hurry the job, but gets proper spray coverage. (2) *Poison ivy* was completely controlled by use of ¾ pound of Ammate per gallon of water, applied in June and using 1/64 inch disks at 650 pounds pressure. Some growers have applied the material at about 75 pounds pressure, as it is necessary only to wet the ivy leaves until they drip. The ivy is likely to come back but not for several years. (3) There is difference of opinion regarding *best type of spray nozzle,* but an experienced research worker stated that he found 8-nozzle brooms using No. 4 disks at 600 pounds pressure to give about the best coverage in his work with several types of equipment. (4) The *pink spray on peaches* is essential in Eastern Shore orchards to control brown rot. In Western Maryland, the spray should be applied where brown-rot has been serious in past seasons. Dusting or spraying with sulfur alone in full bloom may be necessary if muggy weather prevails. Two years are required for spore development in the mummied peaches on the ground, from which the disease is spread. (5) *Basic lead arsenate* does not burn peach foliage, but is not as good as *acid lead arsenate* in curculio control. (6) *Black Leaf 40* is best used in early codling moth control, and *Black Leaf 155* is adapted to use in later (second brood) sprays.

Stanley M. Fulton, Chairman of the Horticultural Sub-Committee, Maryland Agricultural Post-War Planning Committee outlined the post-war suggestions for the orchard industry, among them being the following: Reduce waste by better pest control. Improve soil management practices. Remove undesirable trees and replace poor varieties. Establish rotation plantings. Space trees farther apart. Avoid increased acreages. Cooperate in crop reporting requests. Work with regional and national fruit organizations. Pack a better product and strive for better consumer good-will. Keep up with marketing and by-product developments. Develop strong export trade. Subscribe to regional and national advertising organizations. Encourage research in consumer preferences, newer packages and fruit-breeding and selection. Expand cautiously; borrow on short-term plan; improve land and buildings. Improve living conditions for orchard labor so as to encourage workers to stay on the job. Investigate possibilities of returned war veterans as a source of permanent orchard laborers, using good wages, bonus or profit-sharing as inducements.

Dr. S. H. DeVault, Head, Agricultural Economics Department, University of Maryland, wondered if there was an industrial manpower shortage or if we were working too few hours. Considering the topic of safeguarding the orchard investment after the war, he stated that demand for foods depends upon income and ability to buy, and wars cause increased food demands. After past war booms, the prices of farm products declined first, before prices of other commodities, and this is sure to come again. There will probably be 3 distinct periods in post-war. First will come reconversion, with much unemployment, reduced national income and lower farm prices. Then industrial prosperity will develop with huge production, higher prices, and uncontrolled land prices may soar. Accumulated savings will cause probably the greatest spending spree in U. S. history. Following this will

come a time of adjustment either to normalcy or a depression. Support prices for agricultural products may cause continued increased production with disaster following, if these supports are all removed at one time. To prepare for post-war, (1) Fruit growers should recapture and strengthen the export trade, forming a national council, and developing a sound 2-way trade policy. (2) The per capita consumption of apples should be increased. In 1944 the per capita consumption of apples was 26.9 pounds and of citrus fruits was 65.6 pounds. (3) Price between producer and consumer should be narrowed. Apple growers receive 29% of the final retail price. Improved distribution, better storage facilities, better pack and package, etc., are suggested. (4) Improve the present antiquated and inadequate marketing facilities. Consolidation of Baltimore's present 5 market centers would cost 4 million dollars, but would save 1 million dollars a year. (5) Avoid over-expanded plantings and purchase of land at inflated prices. These prices have increased 42% and are increasing about 1½% per month. Growers should build a cash reserve to carry all operations for 1 to 2 years, and less diversified farms should have even more reserves. Avoid needless spending to reduce income tax. Have investments in liquid form; curtail loans; keep good records to find inefficient practices, and also for tax record purposes. (6) Be ready to use new methods of marketing. Plane shipments of apples and peaches, for instance, will be practical at 10c per ton-mile and strawberries at 15c per ton-mile.

Several grower-methods of building orchard soils were outlined, considering different soil types. On shale soil near Hancock, Mr. E. C. McFadden stated that annual cover crop-cultivation system required too much cultivation. In summer of 1934 the orchard was disked and sowed in rye with 100 pounds nitrate of soda and 200 pounds phosphate per acre. Sweet clover was sown in February, the rye mowed in spring, and clover left for 2 years. Clover was disked and a mixture of rye with a sod mixture of 25 pounds orchard grass; 15 pounds timothy; 10 pounds blue grass; 20 pounds alfalfa; 20 pounds hairy vetch and 10 pounds alsike clover (20 pounds of mixture per acre) was early-fall sown, with 100-200 pounds nitrate of soda and superphasphate per acre. Land was limed where necessary. Rye was mowed in full head, and raked as mulch under trees. Excellent growth; is mowed each year, and nitrate and superphosphate are applied. Mr. D. E. Rinehart, Smithsburg, described his methods of soil building a newly-set peach block. Following spring plowing, lime was applied, also 600 pounds 5-10-5 per acre. First 2 years, cannery beans were grown, with rye and vetch winter cover, spring manuring and summer disking. After 4 years tarnished plant bug came in vetch plots, so 1 bushel of rye and 10 pounds of rye grass with 300 pounds 3-12-6 were seeded last fall, hoping for good results.

Mr. Fulton Allen stated that in his section of Eastern Shore, the very sandy soil would not support legumes so they depended largely upon nitrate of soda for fertility, using rye for winter cover and sometimes thickly-sown corn for summer cover with 300-400 pounds superphosphate applied before seeding. Soil acidity was controlled by liming. Is now using poultry manure, 5 tons per acre, every 2 or 3 years, and is trying out a machine spreader that throws fertilizer over entire soil surface thus placing it under the trees. At this point a discussion arose, regarding a new plan in some parts of the State where lime is delivered and spread on the field or orchard at a delivery price.

Mr. W. C. Main, having orchards on several types of soils in Western Maryland stated that he first took several soil samples, mixing several from each block, and limed or fertilized according to soil analysis. He used cover crops that would stand at least two cuttings per season and a light spring disking. He suggested use of 30 to 40 pounds of boron per acre on the mulched centers.

Mr. Stanley Fulton outlined his methods in the Hancock area stating that in shale soils, deficient in organic matter and moisture, any type of green manure is good, but get heavy tonnage. Then work toward orchard grass, blue grass, etc., using nitrate of soda and phosphate, mow 2 or 3 times a season, and disk up the sod every 2 or 3 years.

Mr. John Chandler, Secretary, National Apple Institute, took the price ceiling question apart, saying that ceilings had no good effect except in controlling inflation. In the first year, they discouraged good packing and deterred movement of ordinary run of apples. Since common packs brought same prices as bulk apples or high-grade well-packed fruit, growers became careless. This year is different, as only best packs are at ceiling or in demand, but there is only slight margin between prices of all grades. He told of special carton packs used in New England where premium prices were paid. Now these packs are not standard, so must be weighed and stamped. Housewives do not shop around, since rationing, so they either buy good apples at one store, or buy none. He suggested a price ceiling based on grade. People have money and will pay for what they get. The National Apple Institute wants a good ceiling price with grade prices falling in where they belong, and with no specific mark-ups. Growers are packing *down* to ceilings, mixing in enough low-grade stock to move it at a price.

In a grower discussion of peach problems, a Harford County grower found bacterial spot and defoliation on Golden East a serious problem. He also warned of the problem of too many old trees, and advised planting new blocks every 4 or 5 years, A good succession of varities was suggester, with good tonnage of each. An Eastern Shore grower felt labor shortage a handicap. He had boys picking and women driving orchard pick-up trucks. Used baskets were a headache, and the rail car shortage may be worse next season, so more trucks may be necessary, if they can be found. The ice shortage for cars was critical. He advised growers to be "shifty" and ready to reverse operations if necessary. A Pennsylvania grower suggested succession varieties for a longer season and found some of the New Jersey varieties good. He suggested good pruning and fertilization. His worst problems were: curculio, brown rot, and labor shortage, saying each grower must figure out his own solutions. If 10% is added to our management and labor efficiency, we will solve a lot of our problems.

Resolutions were passed thanking University of Maryland Extension Service for help in farm labor maintenance; endorsing formation of National Horticultural Council; pledging full cooperation with Federal agencies in reasonable regulations during time of war; urging that essential farm workers be exempted from military draft; commending the Tydings amendment; requesting more prisoner of war and imported labor camps; thanking the speakers; requesting that State Horticultural Council present a resolution through proper channels, asking a State appropriation of at least $15,000.00 for establishment of a field laboratory in Western Maryland for combined horticultural and entomological research. The Baltimore wholesale market

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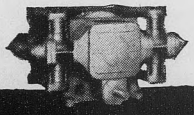

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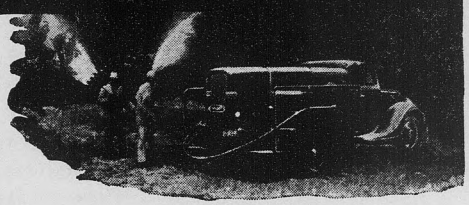

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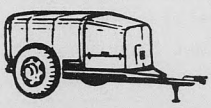

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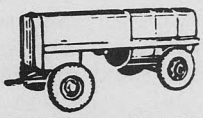

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conditions were discussed and it was stated that the Governor's committee had reported favorably on a new central market replacing the present 5 centers and preventing sufficient losses to liquidate the estimated construction costs in 4 or 5 years.

Mr. Carroll R. Miller, Secretary, National Peach Council discussing the work of the Council stated that OPA regional conferences had set $3.00 as a peach ceiling. After conferring with Washington officials, a peach growers committee presented the case to the national meeting of the Council. Since 77% of peach growers favored a $4.00 ceiling a Fresh Peach Industry Committee was formed, uniting the industry. The OPA gave the South a $4.00 ceiling and the East a $3.66 ceiling, and removed weighing and marking requirements. Near harvest time, the Council met with large Eastern grocer representatives in Philadelphia and discussed the heavy crop. Through a grocers' campaign, much of the crop was moved in orderly fashion. The 1944 membership receipts were $3,800.00. By use of old posters and no salaries paid, the advertising for marketing 75 million bushels of peaches cost the Council less than one-hundredth of a cent per bushel. The Appalachian Division of the Council received much newspaper and radio time free, and paid $200.00 for recipe service. There is some money left to start in 1945. The 1944 marketing program might have been bad, if fruit had sized and caused heavier tonnage. With prospects of a 70 million bushel average crop and 40 million bushels to move in 27 days, there is need for more grower-support of the National Peach Council. Subscription is ½c a bushel of fruit sold. The set-up is organized and growers should support it. The OPA may roll back prices and someone has to watch ceilings.

Question Box replies (1) *Package situation* looks bad for 1945. Materials are scarce, but labor adequate. Decreased production expected. Order new packages early, and plan to get any available used packages. In new packages there is a raised stave basket with flat cover to reduce bruising. Samples available only, as package must be tried out. (2) *Frozen peaches* have a future and apples fairly so, but no predictions possible. Canneries may have a future in peach marketing. Southern canners can pay $1.00 per bushel and make out. It required about 500 acres of peaches to run a canning plant. (3) The present *good prices at canneries* are spoiling growers, as any easy outlet for poor fruit may weaken our efforts to produce a good pack. (4) We need *more cannery outlets* now, but not normally as in former low quality crop years the canneries were swamped. Unloading at canneries is now a bottleneck. It may be a good plan for growers to get their poor stock out of storage and into the canneries. Maybe we'd better forget the past few years and get back to producing quality crops. (5) Suggestions for making *farm income tax* returns were: Adopt form of record-keeping (cash, modified cash or accrual) that will spread yearly income more evenly. Purchase non-depreciable supplies heavily during periods of maximum income. Support legislation that will permit carrying losses backward or forward over 3-year period also that will ease excessive tax from fluctuating incomes. To decrease tax liability separate returns of farmer and wife, as she can claim proportional share if actively engaged through work or capital, and if she actually received the income. Report as capital gains instead of current income the sale of timber, livestock, machinery, and other depreciable property, and thus greatly reduce tax. Be careful in figuring depletion or depreciation costs. Depletion may be based on actual development cost, *above* the price of the land. Deple-

SUPPLEMENT TO THE MARYLAND FRUIT GROWER - February 1945.

The Supply Outlook

According to the Agricultural Insecticide and Fungicide News, published by the manufacturers of spray materials, the spray material picture is not bad. Copper sulfate is tight to adequate in supply, but there should be enough for agricultural needs. Low soluble coppers are tight, as this material is used in special ship paint. Dinitro compounds-tight to adequate; Nicotine - very tight; Pyrethrum - critical; Sulfur - adequate, if ordered on time. Labor and transportation are drawbacks. Wettable spreaders and stickers - probably adequate; Zinc compounds - tight. It is hoped that there will be sufficient zinc sulfate for needs. Fermate is tight and almost frozen, not by Government agencies but by inability to get the necessary materials for making any large amounts. It is hoped that this situation may clear up somewhat.

From a University of Maryland News Release, we find predictions of: Lumber - critically short; Copper wire - becoming tighter; Wooden containers - short; Cloth or burlap bags and agricultural fabrics - not equal to demand. Re-use of all such bags is recommended.

Fertilizer prospects indicate 10% less nitrogen and 20% less superphosphate than last year, but 20% more potash than in 1944. Fertilizer manufacturers warn farmers to order their fertilizer at once and haul it to farm storage, if possible. March and April are critical months in fertilizer plants, especially this year with labor shortage. Be safe. Order and get fertilizer as soon as possible, and this applies to spray materials also. Store fertilizer in a dry place and do not stack over 5 bags high to prevent caking and packing.

Apples in Storage

From various sources the cold storage situation may be summed up about like this: On January 1, 1945 the total U. S. holdings were 32,649,000 bushels and on February 1, 1945 the total holdings were 25,370,000 bushels, showing a movement out of storage during January of about 7,200,000 bushels. There was a sluggish movement of apples out of storage during December, and on February 1, this year, the holdings were about 10 million bushels more than on February 1, 1944, and about 1,700,000 bushels more than on February 1, 1943.

During January, 1945, the movements out of Appalachian storages were: Virginia 754,000 bushels; West Virginia - 176,000 bushels; Pennsylvania - 354,000 bushels. Some Maryland apples are included in these movements. During January, New York moved 1,666,000 bushels, and Washington took 2,763,000 bushels off the ice.

Effective January 16, 1945 the holdings of Winesap, Delicious, and Newton in Washington and Oregon were ordered set aside for military and war service requirements. These apples must be packed in "an acceptable manner", and purchases will be prorated among growers.

Peach Scale

There is an unusually large amount of San Jose scale on peach trees and peach growers should make plans to apply an effective and thorough dormant spray. In many orchards where scale has been observed, there will be tree losses unless the encrusted branches are cleaned up.

For San Jose scale, which is the grayish, flat type of scale, use either 3% oil for the scale plus 4-6-100 Bordeaux to control peach leaf curl, or use liquid lime-sulfur, 1 to 9 (12 gallons in water to make 100 gallons) for control of both scale and leaf curl.

There is another scale insect on peach which should be carefully observed. This is the terrapin scale which causes fruit to become covered with a black, sooty deposit often making the fruit unsalable. The scales appear like small terrapins and are found mainly on the 1 and 2-year wood. If this insect is present, plan to use 4% oil instead of 3% and also add the 4-6-100 Bordeaux for leaf curl control. Lime-sulfur will not control terrapin scale.

Perhaps with the very soft ground that will come with the thaws and the very cold weather holding up the application of oil sprays until too late in spring, some growers will prefer to use lime-sulfur sprays. However, that is a decision for the grower to make. But there is one decision for every grower to make and that is - Spray trees thoroughly. Wrap them up and wash them down. Cover every twig, branch and trunk with spray. One grower expressed it correctly during the Annual Meeting when he said "Don't spray to irritate the insects; spray to kill them."

tion costs *cannot* be used if development costs have been included in current expenses. Interest charges on development costs or capital investment *cannot be assumed* but must represent *actual* borrowed capital. (6) The value of farm cold storages was acclaimed by several growers who stated that they were practical; could be filled at both peach and apple season, and would sometimes save the peach crop. Operation costs per bushel were reasonably low. After 5 years of use of storage, one grower stated there was nothing that would safeguard the established orchard investment as much as a cold storage at the orchard or in the near vicinity.

The officers were re-elected for 1945, these being D. T. Walker, President; Lloyd Balderston, Vice-President; A. F. Vierheller, Secretary-Treasurer. Mr. W. T. Delaplaine, Frederick, was appointed on Executive Committee.

QUALITY APPLE PROJECT

A Quality Apple Project is being planned for Maryland apple growers, under auspices of University of Maryland Extension Service and the Baltimore and Ohio Railroad. Any apple grower (owner or lessee) having a minimum of 500 bearing apple trees and harvesting a minimum of 2,000 bushels of apples maturing on or after September 20th (yield not less than 4 bushels per tree) is eligible to enter the project.

To enter the project, the grower will select a block or blocks with total of 500 trees minimum, and will submit rough map of the block or blocks, showing age and variety of trees. By November 1 he shall submit a short report of orchard practices, sprays, etc.

Records will be taken by the Extension field men in horticulture, entomology and pathology. From the picked fruit placed in field crates under the trees, a random sample of 50 apples will be selected from at least 10 trees, these apples to be scored as free from insect and disease injury. Gold medal and certificate will go to growers having at least a minimum crop 95 to 100% free from insect and disease injury. Silver medal will go to grower having 90 to 94% clean apples. No cost to join the project contest. Think it over Blanks will be sent later upon request.

1945 *MEMBERSHIP IS DUE*

Our Horticultural Society is in high gear, with a fine line of officers and a strong Executive Committee. They deserve the support of Maryland fruit growers in whose behalf they are working. It requires funds to publish and mail our publications, and there are some worthy causes into which it may be necessary to place some financial support. Won't you become an active member of the Society? For $2.00 a year each member receives the News-Letters, Proceedings, Maryland Fruit Grower, and (if a bona fide grower) the American Fruit Grower Magazine. Why not send that check, money order or cash to the Secretary *now*?

THOSE BEES

How are your bees? If you have your own hives, are they getting sufficient food for the winter? Are you planning to rent bees next spring for pollination? *They are scarce.* Better write George Abrams, Entomology Dept., University of Maryland, College Park, at once regarding sources of bees for spring use. With an off-year prospects for some varieties, good pollination is essential for a good fruit-set. One *strong* colony of bees can take care of about 4 acres of trees. A weak colony may handle the pollination for 1 or 2 acres. Think this over and plan at once to get a bee supply.

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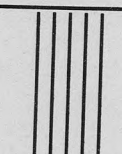

Spray Catalizer is a spreader, sticker and peacemaker of sulfur composition. It acts as a safener in sulfur sprays. In combination with lime sulfur sprays it catalyzes or controls the normal breakdown of the polysulphides in the process of drying on the foliage, shortening this caustic stage, and making lime sulfur safer especially in slow drying weather.

Spray Catalizer in the spray tank of lime sulfur and arsenate of lead prevents the formation of black sludge (lead sulphide) which reduces the fungicidal action and causes so much injury.

Spray Catalizer is used with lime sulfur, wettable sulfur, flotation sulfur, Sulfocide, and micronized sulfur. It gives these sprays the finest balance and maximum control.

Use 1 pound of Spray Catalizer per 100 gallons with Lime sulfur and other sulfurs, with or without arsenate of lead, and 2 pounds with Sulfocide.

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